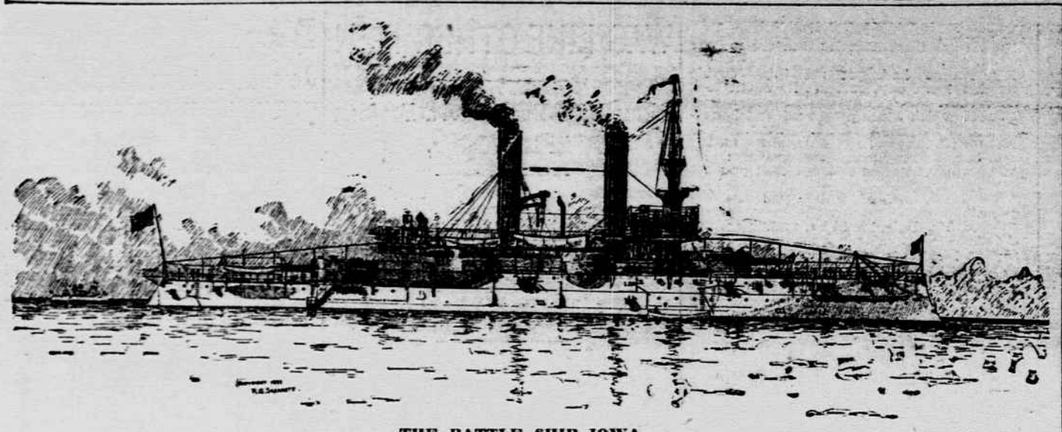


THE BATTLE SHIP IOWA.

A BIG UNDERTAKING

To Design One of the Great Modern Battle Ships.

CALLS FOR VERY CLOSE FIGURING

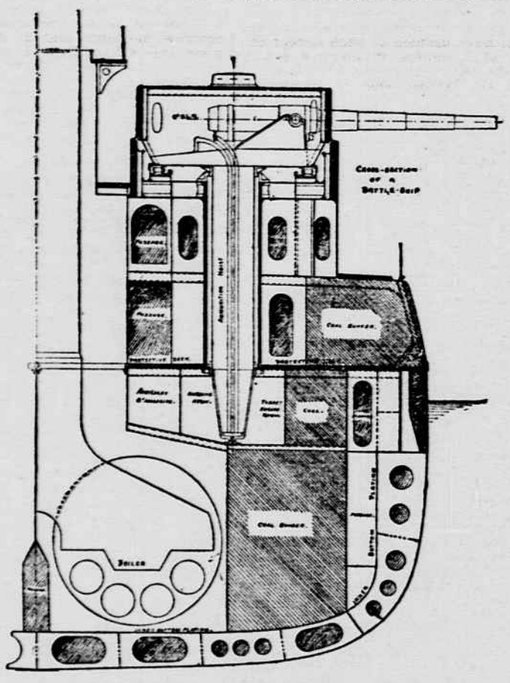
How the Work is Done in the Navy Department.

DETAILS OF IMPORTANCE

(Copyright, 1897, by Robert G. Skerrett.)
Written for The Evening Star.

THE PUBLIC RESponds at once and appreciatively to the successful trial performances of our naval vessels, and in the eyes of that public the builder is looked upon as something just short of a genius in turning out a craft that meets, or more than meets, the government's exactions; but few, indeed, of all those admirers realize how far back of the contractor lies the true secret of that success. A modern battle ship is the most wonderful of all mechanical fabrications, and a better notion of what her planning means may be got by realizing, if only in part, what she is and what she has to be.

Take, for instance, such a craft as the Iowa, the latest and largest of our completed battle ships. She is a floating island of steel, 360 feet long, 72 feet wide, with an average bodily depth of 44 feet, 24 of which are submerged, and she weighs, when ready for sea, 11,410 tons. Primarily, she is a heavily armored, navigable fortress, housing 46 guns, which range from the massive 12-inch rifles, firing projectiles of 850 pounds, down to the little gatling, with its bullet-sized missiles. These guns are sheltered behind walls of hardened steel some 15 inches through, and strong enough to resist the shock of thousands upon thousands of tons. She has two great engines that are able to send her



CROSS SECTION OF A BATTLE SHIP.

along, in the face of wind and tide, at sixteen knots an hour at any time, and down in her bowels are stowed coal enough to feed her boilers and carry her across the Atlantic at full speed, or half-way around the world at a ten-knot jog. She has eighty odd auxiliary engines in the way of pumps, distillers, electric lighting plants, ash hoists, ammunition hoists, cranes, ice machines, blowers, windlasses, steering gears, &c. She has manifold arrangements providing not only for the comfort and health of the officers, but for their convenience and luxury when well, when sick or when wounded in battle. In short, she is at one and the same time an arsenal, a barrack, a machine shop, a store house and a habitable and a healthful home for 500 exacting persons; but, above all, she is absolutely seaworthy and able to bear her burden of ponderous weights with safety in any condition of weather. Such are some of the requirements. Now let us see how they were met preparatorily, and let us follow the evolution of the Iowa as the best present example of promise fulfilled.

The First Provision.

In 1892 Congress made provision for the Iowa in the following general terms:

"One sea-going coast-line battle ship, designed to carry the heaviest armor and most powerful ordnance, with a displacement of about 9,000 tons, to have the highest practicable speed for vessels of its class and to cost, exclusive of armament and of any premiums that may be paid for increased speed, not exceeding $4,000,000."

Of these congressional requirements, the monetary limit of $4,000,000 was the only provision taken into serious consideration, and it was the department's mission to get out of that allowance the best possible ship, excluding, of course, the cost of armor and guns and what might be paid for speed premiums.

The displacement of a ship is another term for her total weight, and with the limitation of displacement the designer knows just how much material he has to work with. With that in mind, he must parcel it out to the best advantage among the various phases of his ship. He cannot exceed that limit lest he change her draft of water or alter her body form or "lines."

Now for the Iowa. With the passage of the act, work began in the bureau of construction and repair at the Navy Department. In the first place, the new ship was to be an improvement on the Indiana and class, ships of 10,288 tons displacement; and, to that end, a thousand tons more of weight or material was allowed. At the same time she was to be an advance upon foreign ships of like weight or displacement.

As the Indiana and her sister ships were then in course of construction, no performance data could be had as a basis of calculation; and the results speak volumes for the care, judgment and skill shown in the original estimates.

Preliminary Plans.

Having determined that the Iowa was to have a displacement of 11,340 tons when ready for sea and with her normal coal allowance of 625 tons on board, that she should be 360 feet long, have a maximum beam or width of seventy-two feet and a fraction, and draw a mean of twenty-four feet of water under those conditions, a preliminary plan was drafted showing the proposed arrangement of batteries and their arcs of fire. The sizes and disposition of the guns being found agreeable to the bureau of ordnance, the "lines" or shape of body below water being established, a series of complex computations were made by the bureau of construction and repair to determine the power needful to drive the vessel through the water at 16 knots an hour. By estimate, it was settled that 11,000 indicated horse-power would yield a resultant speed of 16.75 knots, and the bureau of steam engineering was called upon to state how much weight in boilers, engines, auxiliaries and appurtenances, would be required to develop, economically, that horse-power. That bureau called for 1,212.47 tons, and that much of the total weight of the craft was assigned them for

THE GUN PLAN OF A BATTLE SHIP.

that purpose. In return each contributive bureau was called upon to name what proportion of the whole mass of the ship it needed for its particular province. The bureau of ordnance, having control of guns, ammunition and armor, decided that 1,026 tons would be required for the guns, their supplies and a certain number of the controlling mechanisms. The bureau of equipment, having to do with electric lighting, anchors, chains, cooking apparatus, crockery, hammocks, etc., estimated that 158 tons would cover its needs. The bureau of construction and repair estimated that 4,915.99 tons would be required for the hull proper and its fittings, and that 358 tons would be needed for equipage, such as boats, spars, furniture, etc. The bureau of ordnance agreeing to the distribution and the thicknesses of armor as arranged by the bureau of construction, it was estimated by the latter that 2,813 tons should be reserved for that purpose. As agreed upon, 625 tons of coal were to be carried at the normal displacement which this estimate covers; and 231.5 tons were left as a margin upon which to draw for contingencies arising in the course of construction.

Location and Distribution.

With these weights in hand, the bureau of construction next begins the consideration of their location and distribution; the effort being always to keep them as low as possible and to divide them fore and aft and side and side, so that they may balance one another and minimize the stress of leverage, so to speak. In designing a building, an architect has to consider his weights principally in their relation to a stable foundation and his leverages only so far as they concern some permanent point. He can run up his front as massively as he choose, while the back may be, relatively, ever so much lighter; but so long as the foundation is proportionately strong beneath each, his building will be satisfactery. Not so with the designer of ships. He must also arrange his weights that the center of gravity of the whole ship shall be as low as possible, so that she shall not be easily careened; and at the same time, in the case of a fighting ship, he must not make her too "stiff" or stable lest she right herself too quickly and forcibly in a seaway; for to do htat might wrench her seriously, besides making her an unsteady gun platform. He must trench just close enough to meet any condition of weather or the reasonably normal injuries of conflict.

Strength of the Ship.

The next thing the bureau of construction does is to fix the scantlings or dimensions of materials for the hull proper, and the midship section is then drawn, showing the arrangement of beams, plates and angles. The strength of that section is taken as a standard for all the rest, aside from any special demand for exceptional local strength, and, for that reason, is drawn first. Other sections follow in turn, and the strength of the ship is then considered in still water, pivoted on a single wave at the center, or poised on the crests of two waves. The ship must be strong enough to meet the exceptional, in fact, impossible, stresses of the last two conditions, besides being able to withstand the recoil of her massive guns and the ponderous blows of an enemy's attack.

Next to the consideration of weight comes the question of space, and the nicest kind of dovetailing must be done to make the various mechanical features fit into the least amount of room.

For safety's sake, the magazines, boilers and engines—commonly termed the vitals—must be as far as possible beyond the reach of an enemy's fire. To that end they are crowded below the protective deck, the water-line and many feet of sheltering coal. And, too, for safety's sake, the ship has an inner or double bottom; she is cut up into numerous independent water-tight compartments; and each one of those subdivisions—great or small—is under the control of powerful pumps. That there may be provision against accident, her five great boilers are distributed among four separate compartments; each of her two ponderous driving engines has its own water-tight space; and, as far as possible, everything is in duplicate with interchangeable connections, that complete disablement may be practically improbable.

Interior Arrangements.

After the disposition of the main weights comes the consideration of the lesser ones—lesser in separate gravity, but vast in numbers. There must be blowers to fan the furnaces to blinding fury when running at top speed; there must be other blowers to send fresh air into every corner or to draw from ever recess the lurking, noxious gases; there must be dynamos to generate power and to supply light inside and out; there must be great distillers to provide a bountiful supply of pure, fresh water; there must be pumps to drain or flood the various compartments in case of damage or in case of fire; there must be lifts for the big masses of shot and shell, for the hoisting of ashes, the handling of boat and the raising of the heavy anchors; there must be power to control the rudder against the violent rush of tons and tons of water, and there must be a small machine shop for the exigencies of repair.

There are spare parts, spare tools and a certain amount of materials to meet the drains of service as well as some unusual wear and tear. There are miles upon miles of piping, ranging from the thickness of one's little finger to the breadth of one's body; there are thousands and thousands of yards of wire; and an almost interminable measure of steel plates, angle bars and rivets, the smallest portion of which has an appreciable significance in the eyes of the naval constructor. Everything has its relative value in pounds, and everything must be accounted for, placed and foreseen with a grasp of finalities just short of superhuman. A pound is a pound, in effect, only at the center of gravity, and grows in moment by every foot it is moved from that center; and, by that, one can realize how vital is the determination of position, and how, in large masses, the movement of even a foot is a serious matter.

A Delicate Task.

Every one of these delicate calculations is made in the bureau of construction, together with the exquisite task of the formation of "lines" and the nice determination of the power required to meet the demanded speed upon those lines. It is not every one that knows that body-form below water is the first consideration in speed, and that that form has a determinate possibility, beyond which greater speed can be got only by a wasteful expenditure of power. Such is the fact; and the engines that may induce ten knots in one craft may reach fifteen in a vessel of finer form, and vice versa.

With the design of the main propelling engines and their auxiliaries settled by the bureau of steam engineering upon the basis of 1,212.47 tons and a development of 11,000, capable of inducing a speed of 16.75 knots as calculated by the bureau of construction and as since proved by her trial, the construction of the ship was awarded to the contractor.

Country Life Cured His Nerves.

From the New York Times.

There is much said about the strain to the nervous system of the constant noise and friction of city life, but it is seldom that anything like facts can be given in relation to the matter. Now, members of a family which has recently taken up its abode in the suburbs for good and all believe that they can say absolutely that the city causes, or greatly increases, the severe nervous affection of one of the children. This child, a boy, has had St. Vitus' dance, and the trouble had become so serious that the parents were alarmed for fear the little fellow would injure himself. Eating was almost an impossibility, the jerking hands carrying knife and fork into dangerous proximity to the eyes. A year ago this past summer the family took up its abode temporarily in the suburbs in the northern part of New York city. There the boy had plenty of fresh air and exercise, and by the middle of September he was apparently as well as any boy could be, and the family returned to the city. But there the trouble began again, and by the end of that month the boy was in as bad condition as ever, and the other members of the family, in sympathy, began to move in jerks, which soon became distressing.

"I don't know how the boy came to have such a trouble," said the father, speaking of the subject recently, "and I cannot tell why we should have been affected by it There have never been any diseases of the nerves in our family before. But there was one simple remedy for it all, and we accepted it immediately. We have moved into the suburbs for good, and I am sure that you would never think that boy," pointing to a healthy-looking youngster careering along the road on an old bronco, "had a nerve in his body."

Seeking Objects.

From the Chicago Evening Post.

"I understand they are going to move the medical college."

"Yes; they want to get a little nearer the foot ball field."

Scheminski—"Vat? You take a bath efery day? Vat for?"

Brown—"Oh, it makes a fellow feel better."

"Chust because it maigs you veel petter? You must pe von of dem ebbicures."—Indianapolis Journal.

A Cut Beneath Her.

From Punch.

Lady of the house—"Oh, yes, Jane, I asked Mrs. Johnston to let her little boy and his nurse call to go walking with you and the children."

Nurse—"Well, ma'am, I hope as you don't expect me to go walking with that young person? I don't think you can be aware, as she is only a nurse-'ousemaid!"

SOME LIKE IT COLD

Animals at the Zoo Seem to Thrive in Winter Time.

PREPARING FOR THE COMFORT OF ALL

A New Building is Now Ready for Their Accommodation.

THE OSTRICH AS A DANCER

IF THIS WEATHER keeps up much longer I think I'll start for Florida," said a tall, slim gentleman with a long nose and eyes set close together. He wore a peculiar outer garment, which somewhat resembled a coat of mail, and looked as if he had seen better days. He appeared well kept and was somewhat corpulent, but had an uneasy expression, as if he was out of his element.

"Washington is all right in summer," continued the speaker, "but give me the far south for the winter months. I've been feeling a little chilly for some days now. If I can manage to scrape together enough to pay my board bill, I will take a sneak for a warmer clime."

This seemed to tickle another gentleman, who was the interested listener, so much that he grinned literally from ear to ear. His mouth opened like a threshing machine, and the display of teeth looked like the exhibition of hay rakes in a hardware store window.

"Ho, ho, ho!" he roared, "wait until about Thanksgiving day, old man, and if you don't freeze so stiff your tail can be used for a base ball bat, I'll eat my little brother. Wait till everything is white outside and the water gets hard like a rock. Then you can talk. This is sardines and whitefish compared with coarse sturgeon. If it kept this way I'd be satisfied, but I spent last winter here, and I know what we are going up against."

The two gentlemen were residents of the main animal house out at the National Zoo, and their family name is Alligator. One was an old inmate of the place, the other a comparative newcomer, who had seen, from the inside, however, what a winter day may be like in the capital. Purely on account of a desire to tease, the old resident neglected to impart the information that every precaution is taken by the officers in charge to keep the pets of the nation in their Rock Creek nursery

Our House-Warming.

from feeling the effects of the cold winter's blasts, or, at least, those of them which are unaccustomed to their influences.

Residents of the Soldiers' Home, inmates of St. Elizabeth's and the other asylums under the direction of the government, are well provided for, and care is taken that they shall be comfortable during the cold weather. None are better provided for than the two-legged, four-legged and no-legged waifs at the Zoo. The arrangement of their winter quarters and provisions is a matter of the greatest importance at this season of the year.

Head Keeper Blackburne of the Zoo may or may not have heard the conversation between the two alligators. If he did he understood it fully, for he is perfectly familiar with the speech indulged in by his charges. They confide in him, and he listens to their complaints. Whenever "Commissioner Ross," the ostrich, requests a diet of new-laid horseshoes or something of the sort, Blackburne is always dumb, except on Thanksgiving day, when such delicacies are allowed. If he did hear the conversation, however, it did not remind him of his duties, for he and Superintendent Baker have been for some time making arrangements to have the animals properly housed.

Just yet there is no reason why the animals should be kept closely confined, with the exception of those which are natives of the extreme tropical countries. The monkeys are especially liable to take cold, and must be kept warm. The main animal house, in which their quarters are located at the Zoo, has been heated up for some time. They doubtless imagine, unless some of them are sharp enough to have noted the difference on the outside, that Washington weather is perpetual summer. With an average temperature in the building during the winter months of nearly seventy degrees there is no reason they should think otherwise.

In the New Home.

The furred, feathered and scaly hot-house plants will be kept in the main building at the Zoo, where most of them are now confined during the winter. In addition a new building has been constructed, near the elephant house, where the ones, which are not already located in the other, will be quartered. The new building is about completed, it having been begun in August. Its dimensions are about ninety feet in length by forty in width, and although considered only a tempory one, is really most substantial. It is finished on the outside with "pebble dash," something on the order of stucco work, and is fitted up nicely on the inside with cages. On one side is a chamber, in which any extra snakes which may be left over will be kept. This will be fitted with glass and kept a little warmer than the other part. Both this and the main building are heated by steam.

When the main building was inspected, the monkeys were holding a caucus—probably a prohibition one—to prohibit the lions from using profanity in the presence of ladies. Suddenly one stopped, pointed to a man standing near by, gesticulated violently, chattered lustily and seemed to be demanding sympathy from the others. Head Keeper Blackburne was listening.

"What does the monkey say?" asked the reporter.

"He claims the visitor looks like a deceased relative," was the response. "They are all the time bringing up troubles of their own. Those monkeys would get fat if they didn't have so much sentiment. Romeo and Juliet were ideals of happiness compared with them."

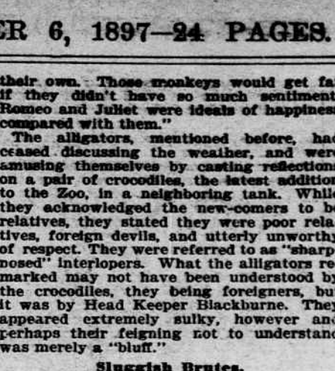
The alligators, mentioned before, had ceased discussing the weather, and were amusing themselves by casting reflections on a pair of crocodiles, the latest addition to the Zoo, in a neighboring tank. While they acknowledged the new-comers to be relatives, they stated they were poor relatives, foreign devils, and utterly unworthy of respect. They were referred to as "sharp-nosed" interlopers. What the alligators remarked may not have been understood by the crocodiles, they being foreigners, but it was by Head Keeper Blackburne. They appeared extremely sulky, however and perhaps their feigning not to understand was merely a "bluff."

Sluggish Brutes.

There are two of these crocodiles. One of them is about eight feet in length. They were presented to the Zoo by J. Eugene Jaringan, United States consul to Utilla, Honduras. Like the alligators, they are confined in a compartment which has a tank in it. The water in these tanks in the winter is heated to a temperature of about seventy degrees. During most of the time they are sluggish. They are fed on meat and fish, each day, and have the privilege of eating it or not, just as they choose.

The snakes in the Zoo have begun to "get together" already for mutual protection. They have wrapped themselves together in an almost solid mass. Their personality has been completely lost, and they are close friends in all the term implies. It is warmer in the glass cases where they are confined, than outside. Blackburne says they always seem perfectly satisfied.

A tank is being prepared in the main building for the benefit of the sea lions.



We Are Doing Well.

They can stand some cold weather, but it is thought best to have them housed.

In the main animal building are quartered the lions, hyenas, the tiger and other members of the feline race, which come from warm countries. An animal which is a native of the burning sands of sunny Africa can not withstand the rigors of this climate in winter.

Outside the main building are the cages containing the lithe-limbed, emerald-eyed panthers, accustomed to cold weather, and equally at home in frost and snow, as in the scorching sun of the southern climes. They have dens, which are furnished with straw during the winter, and make themselves comfortable.

"Commissioner Ross."

"Commissioner Ross," the splendid ostrich, is now located in a warm little structure in a compound inclosed with wire netting. Blackburne introduced the reporter to the commissioner. The bird smiled blandly and requested an opportunity to give an exhibition of the terpsichorean art. The request was granted, the door opened and the highland fling, gyrations and genuflections indulged in by the more than two hundred pounds of bird flesh would have been a lesson for a Gaiety girl.

The manner in which the bird held its feathers presented a ridiculous likeness to a danseuse in short skirts. Tired of the exercise, and the applause which he received, the commissioner made for a small pond at one side of the inclosure, and would have taken a bath, in spite of the fact that bathing days are over. The bird and Blackburne indulged in a somewhat heated argument regarding the matter, the bird declaring petulantly that ice would be here soon and every opportunity would be lost. A workman was sent for and the affair finally disposed of by having the hole filled in. By moral and physical suasion Blackburne kept the commissioner from landing heavily on the solar plexus of the workman. The reporter, standing near, mentally calculated if two bodies move at the same rate of speed at the start, how far apart would they be at the finish, distance and an increasing rate on the part of one being unknown qualities. The hole was finally filled in, and the plumed knight of the African desert assisted in the ceremonies by trampling in the earth. His outdoor exercise will soon be curtailed, and his exhibitions confined to a caged portion of the new building.

This is All Right.

The two elephants, "Dunk" and "Gold Dust," were next visited by Blackburne, the bob-tailed Manx cat and the reporter. A stove has been placed in their building, in which fire will be kept burning continuously, for elephants feel keenly the cold, and suffer unless provided with warmth.

As the little party entered the house Dunk's eyes twinkled, and he said something to Blackburne, who looked as if he had been struck a sudden blow.

An Elephantine Jest.

"It was the same old gag about checking his trunk for him—he was tired of carrying it," was the explanation Blackburne gave.

Plenty of warm straw is provided for the elephants. Life in the District agrees with "Dunk," for he has gained 3,000 pounds since he came here, being an average of a trifle over 500 pounds a year.

In the long, cold nights the two friends can sleep and enjoy themselves. Blackburne says it is a mistaken idea that elephants are never caught napping. He has even caught them trumpeting in their sleep, suffering from restless dreams, perhaps. "Dunk" and "Gold Dust" can further amuse themselves by telling of their experiences while "on the road," for they were both circus members at one time.

The three kangaroos were engaged in a triangular boxing match when they were visited in their compound. When the door was opened they made a rush, and hopped about the inclosure with every expression of delight at their outing. They can stand more cold than is generally supposed, but will be given quarters when it becomes colder in the new building.

The llamas are accustomed to the mountain passes of the Andes, and can stay out all the year. There is a thatched house provided for them, into which they may go, when it rains or snows. The English sparrows have appropriated the thatched part to their own purposes, and in consequence repairs will have to be made.

Most of the animals, according to Blackburne, are humorists. An old one was chastising a young female, ending with a remark to the mother of the family standing near. Interpreted this was as follows: "I told her if she didn't go inside, I'd llama."

The coons are fat just now, and are almost ready to retire into the hollow of the tree which has been provided for them. This is packed with straw and affords them splendid quarters. As Blackburne looked at them, he whistled a familiar air, the words of which were to the effect that all that class of animals to his eye have similar points of resemblance. The coons lie in the crotches of the limbs during the day, and retire into the trunk at night.

On the Range.

The elk stay on the range provided for them during the winter, as do the buffalo. The bears have little dens, into which they may retire when so inclined, and bask in the warmth of the large amount of straw provided for them during the winter season. Unfortunately, there are no polar bears at the Zoo just now. If there were, they would begin to enjoy life a little later on. "Old 'Eph" does not mind wind or weather, as it is found among the fastnesses of the Rockies, and he can show the other inmates of the Zoo how to keep warm, even if the thermometer does go below zero and no inside quarters are provided.

The prairie dogs and badgers will burrow in the earth and gain warmth from each other and their surroundings. They will probably be seen all the winter, as will the woodchucks or groundhogs. The latter hibernate to a certain extent, but are in and out of their little rooms in the cages provided for them. Straw will serve to keep them warm.

The wolves, foxes and such animals do not require accommodations which are heated, being accustomed to life out of doors in all sorts of weather. Only warm bedding, and plenty of it, is furnished, and as far as possible shelter is furnished, so that the cold blasts may not drive directly on them. The squirrels and other small animals are fully provided for.

In the winter the inmates of the Zoo have largely increased rations furnished them, and they generally grow fat on this account. They appear at their best at this season.

As a matter of fact, there are more visitors at the Zoo in winter than in summer, and Uncle Sam's dumb charges are found fully as wide awake, and in some instances more so, than in the summer season.

The little community of aliens on Rock creek were so well kept last winter that there was not one case of frostbite among them. All that is required of them is to eat, sleep and look pleasant—when they have visitors. Head Keeper Blackburne gives them lessons in the latter art.

ART AND ARTISTS.

An important meeting of the Washington Water Color Club is scheduled for this afternoon at half-past 4. All the matters touching the coming exhibition, which opens December 6, will be discussed, as this is the first time that the members have come together since the early summer. The meeting will be held in Miss Bertha Perrie's new studio, a room which she has just fitted up in a cozy way on the upper floor of the Art Students' League building.

* * *

Miss Sara Bartle is resting temporarily from her work, but will take it up again in a short time. Her stay in Newport during the summer was decidedly successful, and she found her time pretty well occupied. Among the miniatures which she made there may be mentioned the likenesses of Mrs. Benjamin Thaw and her daughter Henrietta of Pittsburg and the portrait of Miss Barnes. If Miss Bartle's present plans are carried out she will go to that city about Christmas time to execute some orders, and later to New York. She has now under way a miniature of a little boy with golden hair, which, even in the unfinished state, gives promise of becoming a perfect gem. That she is unusually successful in her portrayal of children no one can doubt who has seen the charming miniature of her nephew which she made some time ago. Miss Bartle spent the early part of the summer in East Gloucester, and, aside from her work in portraiture, she made a couple of nice outdoor subjects, which show the same delicacy of handling that characterizes her miniatures. Both of these water colors, which are executed on tinted paper, are moorland scenes, one of them presenting a corner of the great boulder that every visitor to Gloucester knows by the name of Sunset Rock. While she was away she experimented with monotypes a little, and from a successful motive showing a bit of Rocky Neck one would hardly guess that all the requisites for the practice of this interesting art are a zinc plate, a mixture of printer's ink and bicycle oil, and a clothes wringer in lieu of a press.

* * *

Mr. H. B. Bradford employed most of the time which he spent at Bristol, R. I., in making portraits in black and white, and has a number of these to show for his summer's trip, though, of course, many have already passed into other hands. Since his return he has been engaged mainly on pen work for illustration, and has been busy with a number of bicycle subjects. One of these, in which he has pictured a young man and a girl out for a ride, and two spirited in action, and drawn with much accuracy. Another pen drawing pictures a rather awkward young man dancing with a sweet, graceful girl. In his pen technique Mr. Bradford is surmounting a good many obstacles, and is fairly successful in the difficult undertaking of catching a likeness in a portrait executed in ink.

* * *

Mr. Carl Weller is one of a number of Washington artists who were at Gloucester this summer, and he has brought back a number of good things by which to remember his stay in the old fishing town. Among these are the usual sketches so typical of the place, studies of fishing schooners moored to old gray wharves. One of the best of these was painted when the tide was out, leaving a long stretch of mud about the bases of the moss-covered piles. Annisquam, a town a few miles from Gloucester, furnished him with a motive or two, the old church being the most pleasing of these. In the early part of his summer trip Mr. Weller visited York, Me., where he made a few sketches of the characteristic scenes on land and water. All the work which he did while he was away is in water color, and he has a number of excellent subjects from which to select his contribution to the coming exhibit.

* * *

Old English masters, of which so many fine specimens were shown at Fischer's last season, again hold sway there. Of Sir Joshua Reynolds there are several examples, the most important as to subject being the large canvas entitled "Cupid Disarmed." Less pretentious but really more satisfying is the portrait of a little girl glancing up with a roguish look in her eyes. All the light in the picture is concentrated on the face and the lightly folded arms, and this effect of chiaroscuro results in a very unusual composition. Another painting represents the artist Hamilton showing Sir Joshua's sketch for the Tragic Muse. Close by it hangs a striking portrait of John Mason, by Gainsborough, and two small landscapes by Constable, an admirable oil and an indifferent water color. One of the most fascinating portraits in the exhibition is the half-length figure of Lord Butte by Allan Ramsay. There is nothing striking about the figure, for it is painted in a reserved manner, but there is a subtle charm of color and line that compels admiration. In the face, which is expressive of the greatest refinement, the flesh tints are all that one could wish, and an especially pleasing color note is sounded in the soft rose-colored coat trimmed with creamy lace. Another beautiful piece of coloring is Sir Thomas Lawrence's head of a lady with hair of reddish gold. The likeness of Dr. Walker by Raeburn is rather hard in its modeling, but it is one of these intimate portraits which express character with so much sincerity and truth. Among the other canvases are portraits by Godfrey Kneller, Lely and Zoffany and a nude figure by William Etty, as well as the head of a little girl. Then also one should not overlook the semi-architectural subject by Bonnington and the landscape by Barker.

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There is an interesting invention at Fischer's which, if it does not print actual color photographs, does the next thing to it, in that it shows objects in their natural colors. A series of positive plates are made from any given negative, all these being in black and white only. Then by an ingenious arrangement these plates are placed over three pieces of glass colored with the primary hues red, yellow and blue, so that the light shining through blends the effect into one. The effect of color resulting is marvelously exact.

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Mr. R. Le Grand Johnston still keeps up his out-of-door sketching, and has become so thoroughly absorbed in it that the weather will have to get pretty cold before it will drive him to his studio. He has been doing so much indoor work recently that he thoroughly enjoys getting in close touch with nature once more, and the fresh impressions that he has been getting will undoubtedly do much for his work during the coming winter. Most of the sketches have been made very rapidly, as studies of values or to fix color schemes or composition motives that he wishes to utilize in future pictures, but many of them are all that one could wish without adding a single touch. In his portfolio of sketches there are both oils and water colors, the latter being executed on various shades of tinted paper, with use of body color, that gives some of them almost the strength of an oil.

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Mr. Lucien Powell did not bring many sketches with him when he returned from Paxson, but of these one or two are worthy of especial mention. Decidedly the best is a view of Raven Rocks, a great stone formation cropping out from the side of the mountain. On the crest and at the base are storm-twisted trees, with here and there the bleached skeleton of some dead pine, making a scene of desolate grandeur. Mr. Powell has caught the spirit of the subject very well, and the study might be worked up more elaborately to good advantage. Another of the good sketches that he made is a scene along the bed of a small brook, in which autumn coloring plays a pleasing part.

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On November 4 the members of the designing class of the Art Students' League gave a lunch to provide funds for some reference works for their class. The young ladies had no designs on the lives of their patrons, and served a sumptuous repast at a ruinously low price. The affair was voted such a success that it will probably be repeated later in the month. A meeting of the members of the league was held on Tuesday afternoon, but nothing of importance transpired, though the usual routine of business was gone through.

HISTORIC SHIP ROTTING AWAY.

One of Commodore Perry's Lake Erie Fleet Rapidly Decaying.

From the Chicago Post.

Buried deep in the sands at the edge of Spring Lake, near Grand Haven, Mich., lies the hull of the old sloop Porcupine, which was one of Lieut. Oliver H. Perry's fleet in the battle of Lake Erie. The old boat is nearly gone. She has lain there since 1873, when she went out of service, and was beached by a gang of men who had tried to rig her up as a lumber lugger. D. M. Ferry, later a United States senator from Michigan, owned the land where the discouraged sailors flung the hull, and he left her there to work deeper and deeper into the sand. She is just at the end of one of his docks now; but he knew the honorable part she had played, and while he lived he refused to move her.

When Perry came to Erie that March day in 1813, the British being in command of the lake, and hourly menacing Ohio and Michigan, the timbers of the Porcupine were swaying with the wind in the forests ashore.

Two gunboats were building at Erie when Perry arrived, but there was nothing to protect them while building, nor to arm them when completed. If Barclay had been disposed he could have sent men ashore in the small boat any night and burned up ships and shipyard. But he needed vessels himself, and was willing to let the Americans build them for him. Perry sent workmen to the forest, cutting oak, walnut and poplar, and oxen hauled the timbers to the beach. He sent other men to Buffalo, to Commodore Chauncey on Lake Ontario, and to the Secretary of War at Washington, pleading for men, for arms, for ammunition, for sails, and for iron.

Day and night the work went forward. The Lawrence and the Niagara were finished. The Porcupine, the Tigress, the Somers, the Trippe, the Caledonia, the Scorpion and the Ariel were hastening to completion; and the energy of Perry was bringing equipment and men from every direction. He enlisted men for $10 a month "till after the battle." By August he had a fleet in the harbor and 300 men to man it.

The wish to engage, so often shown by the British when Perry's ships were at Erie, was no longer manifest now that he was on the lake. Perry sailed to Put-in-Bay, and August 10 his lookout saw the topgallant sails of the British squadron. He weighed anchor immediately and sailed to meet the enemy, whose ships were the Detroit, the Queen Charlotte, the Lady Provost, the Hunter, the Chippewa and the Little Belt. Barclay had fought under Nelson at Trafalgar, and no fresh-water sailor should daunt him.

But "Perry's luck" went with the Yankee lieutenant. The wind was with the American vessels. Their commander flung the banner, "Don't give up the ship," from the main of the Lawrence, and outran his fellows in his eagerness for the fray. The Detroit had long-range guns, and Perry signaled for close action. He drove headlong into the enemy's line and raked him with both broadsides. But the big Lawrence was crushed, and Perry, assisted by the chaplain and purser, fired his last gun and went in a rowboat to the Niagara. Across the open space between them he stood up, waving his pennant and defying a shower of canister that Barclay sent after him till he reached the second frigate. Then he caught the wind again and swung for a second time against the line. The Detroit and the Queen Charlotte became inextricably entangled, and Perry's broadsides tore through both of them. The little Porcupine, disdaining to shorten sail, ranged through the Hunter, the Provost and the Belt so close that the Kentucky riflemen Gen. Harrison had sent on board could kill the British gunners at their work.

At 3 p.m. the flag came down from the fore of the Detroit, and in less than five minutes two more struck their colors. But the Chippewa and the Little Belt cut and ran, and the Porcupine went after them. It was a stern chase, but she won it, and they came back side by side—the stars and stripes above them.

"We have met the enemy and they are ours," wrote Perry, and sent the dispatch to Harrison.

Quicker to Disagree.

From the Detroit Free Press.

He—"The jury were out several days and then failed to agree."

She—"That shows the folly of masculine juries—a jury of women would have disagreed much sooner than that."

House Hunter—"I have looked over that house which you recommended so highly, and I find the walls damp, the shutters half off, the drainage out of order, the cellar full of water and the roof leaky."

Agent—"Yes, sir; I know the house is in rather bad condition, but think of its advantages—there isn't a piano in that block!"—New York Weekly.